

AMENDMENTS TO THE CLAIMS:

The following listing of claims replaces all prior listings, and all prior versions, of claims in the application:

Listing of Claims:

1. (original) A vertical furnace comprising:
a reaction pipe located in a heating furnace;
a means for feeding reaction gas into the reaction pipe; and
a means of holding a wafer in the reaction pipe;
wherein the wafer has {001} as a main principal plane and is heated in a condition in which the wafer is prevented from making contact with the holding means in crystal orientations <100>, <010>, <-100> and <0-10>.
2. (original) A vertical furnace as set forth in claim 1, wherein the reaction tube has a double structure composed of an outer tube and an inner tube, and the wafer is adapted to be located in the inner tube.
3. (original) A heat treat method wherein a wafer having {001} as a principal plane is heat treated in such a condition that the wafer is not supported in crystal orientations <100>, <010>, <-100> and <0-10>.
4. (original) A heat treat method wherein a wafer having {001} as a principal plane is heat treated after the wafer is supported at desired positions other than crystal

orientations $\langle 100 \rangle$, $\langle 010 \rangle$, $\langle -100 \rangle$ and $\langle 0-10 \rangle$.

5. (original) A wafer boat for a vertical furnace, comprising a plurality of vertically arranged support columns, and support members for wafers, supported to the support columns at predetermined pitches in the vertical direction, the support members supporting the wafers so as to be made into surface contact with the peripheral edge parts of the wafers, characterized in that groove-like cutouts for preventing the support member from making contact with the wafers are formed in the support members in surfaces on the side where the support members support the wafers, at positions making angle of 45 deg. with respect to an inserting direction of the wafers at the center of an arc or a ring of each of the support members.

6. (original) A wafer boat for a vertical furnace as set forth in claim 5, characterized in that the support members are not provided in a range from an angle of +45 deg. to an angle of -45 deg. with respect to the inserting direction of the wafer.

7. (original) A wafer boat for a vertical furnace as set forth in claim 5, characterized in that a curvature is formed in an end part of each of the groove-like cutouts.

8. (original) A wafer boat for a vertical furnace, comprising a plurality of vertically arranged support columns, and support members for wafers, supported to the support columns at predetermined pitches in the vertical direction, the support

members supporting the wafers so as to be made into surface contact with the peripheral edge parts of the wafers, characterized in that the support members are formed therein with groove-like cutouts for preventing themselves from making contact with the wafers each having {001} as a principal plane crystal, in crystal orientations $\langle 100 \rangle$, $\langle -100 \rangle$, $\langle 010 \rangle$ and $\langle 0-10 \rangle$.

9. (new) A vertical furnace comprising:

a reaction pipe located in a heating furnace;

a means for feeding reaction gas into the reaction pipe; and

a means for holding wafers in the reaction pipe;

the means for holding wafers further comprising a plurality of support columns vertically arranged, support members arranged at predetermined intervals in a vertical direction along the support columns, for supporting the wafers at outer peripheral parts thereof, and grooves formed in a surface of each of the support members on the side on which the associated wafer is supported, at positions making angles of 45 deg. with respect to a direction of insertion of the wafer at the center of the support members so that a support member and the wafer are positioned with a space therebetween.

10. (new) A vertical furnace as set forth in claim 9, wherein no support members are present in an area in a range from -45 to $+45$ deg. with respect to direction of insertion of the wafer.

11. (new) A vertical furnace as set forth in claim 9, wherein the support members are arcuate or in a ring-shape.